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MICHAEL J. TRAVIESO
PEOPLE'S COUNSEL

SANDRA MINCH GUTHORN
DEPUTY PEOPLE'S COUNSEL

DONALD F. ROGERS
PAULA M. CARMODY
CYNTHIA GREEN-WARREN
THERESA V. CZARSKI
WILLIAM F. FIELDS
LUANNE P. MCKENNA
RICHARD T. MILLER

MARYLAND PEOPLE'S COUNSEL

WILLIAM DONALD SCHAEFER TOWER
6 ST. PAUL STREET, SUITE 2102
BALTIMORE, MARYLAND 21202
(410) 767-8150
(800) 207-4055
FAX (410) 333-3616

August 20, 2001

Ms. Magalie Roman Salas
Secretary
Federal Communications Commission
Room TW-B 204
445 12th Street, S.W.
Washington, D.C. 20554

Re: CC Docket No. 01-92, Developing A Unified Intercarrier Compensation Regime

Dear Ms. Salas:

Enclosed please find the Comments of the National Association of State Utility Consumer Advocates (NASUCA) in the above-referenced docket. I have enclosed four (4) copies pursuant to the Commission's Comment Filing Procedures. Additionally, Comments have been sent to parties on the attached service list and a diskette has been submitted.

I have also enclosed an additional copy for receipt-stamp which I ask that you return to me in the enclosed postage-paid envelope.

Should you have any questions regarding this matter, please do not hesitate to contact me.

Very truly yours,

Michael J. Travieso
People's Counsel
Maryland Office of People's Counsel

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BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
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AUG 21 2001

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In The Matter Of Developing A
Unified Intercarrier Compensation
Regime

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CC Docket No. 01-92

**COMMENTS OF THE NATIONAL ASSOCIATION
OF STATE UTILITY CONSUMER ADVOCATES**

Prepared By:

Professor David Gabel
Mark Kosmo
Gabel Communications
31 Stearns Street
Newton, MA 02459
(617)-243-0093

August 21, 2001

Submitted by:

Michael J. Travieso
People's Counsel

Maryland Office of People's Counsel
6 St. Paul Street, Suite 2102
Baltimore, Maryland 21202
(410) 767-8150

On Behalf Of The National
Association of State Utility
Consumer Advocates
8300 Colesville Rd., Suite 101
Silver Spring, MD 20910
(301) 589-6313

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EXECUTIVE SUMMARY

The National Association of State Utility Consumer Advocates (NASUCA) is categorically opposed to the proposal of the Federal Communications Commission to establish a Unified Intercarrier Compensation Regime as proposed in the Notice of Proposed Rulemaking (NPRM) of the Federal Communications Commission released in FCC Docket No. 01-132 and CC Docket No. 01-92.

The proposed changes would institute a **Bill-and-Keep** regime for assessing termination charges, whereby there would be no termination charges and each carrier would be required to recover the costs of termination from its end-users. This would replace the current system where carriers are required to negotiate reciprocal compensation as mandated under the 1996 Telecommunications Act.

However, the NPRM has failed to address adequately why the Commission has decided that it must renounce its dependence on competitive markets and instead rely on regulation to draw down termination fees. NASUCA believes that the Congressional intent was to rely on markets to determine a sensible rate structure. The rate structure proposed by the Commission can find no support in the operations of competitive markets. Networks only interconnect on a bill-and-keep basis when the benefits are balanced. We provide an extensive review of network operations to show that balanced benefits are more often the exception, than the rule.

The FCC has effectively proposed recovering traffic-sensitive costs through a fixed customer line charge. The surcharge is anathema to NASUCA. Congress did not open up the telecommunications market in 1996 so that the Federal Communications Commission could impose a regulatory outcome that is not observed in any network industry. Moreover, NASUCA believes that the NPRM presents the weakest case we have ever seen for an additional surcharge on customers' bills because the Commission is proposing to recover traffic sensitive costs through a fixed subscriber line charge. The Commission has failed to justify that such a radical departure from economic efficiency is in the public interest.

Our position is that a Unified Intercarrier Compensation Regime would:

- ◆ Be inconsistent with the principles of network operation based on the experience of interconnection charges in other industries (e.g., electricity, airlines, banking, credit cards) where flat rate end-users charges are not used for recovering traffic sensitive costs;
- ◆ Contradict the Telecommunications Act of 1996 particularly as Congress provided specific provisions regarding LECs to negotiate reciprocal compensation and then have states arbitrate any disagreements – **Bill-and-Keep** is thus, without justification, a tremendous deviation from Congress's explicit requirement that carriers negotiate contracts;
- ◆ Violate *Smith v. Illinois* since it results in end-users paying for traffic sensitive costs associated with long-distance calls through a fixed-monthly charge – this is true under both versions of **Bill-and-Keep** (COBAK and BASICS) since both can only reasonably be implemented through increases in end user charges¹;

¹ By the same logic bill and keep violates *Smith v. Illinois* for local calls. The costs of local interconnection could only be recovered through end-user charges. Hence an interconnecting carrier would not be paying for use of the local switch. The Supreme Court rejected this arrangement for toll calls

- ◆ The Commission's proposal to replace usage sensitive terminating access fees with a fixed customer charge is bewildering in light of the Commission's long-held view that economic efficiency dictates that traffic sensitive costs be recovered through traffic sensitive rates;
- ◆ Violate fairness because low volume users have to subsidize high volume users;
- ◆ Discourage the use of telecommunications since there will be an incentive for parties to not answer calls to reduce termination charges assessed on them – i.e., **Bill-and-Keep** would not capture the positive network externalities associated with the Calling Party Network Pays principle;
- ◆ Interfere with the development of the Internet by imposing a rate structure that the Commission's Staff has recognized discourages investment;
- ◆ Amount to confiscation since it requires carriers to provide interconnection without compensation.*
- ◆ Send improper signals on technology choices (and hence their effects on capital markets), and at the same time harm individual consumers who will likely pay higher prices for poorer service. The proposal is clearly not in the public interest.

The statement of Commissioner Furchtgott-Roth cuts to the heart of the matter:³ "Requiring intercarrier compensation of specific forms, such as **Bill-and-Keep**, is nothing more than price regulation—harmful to contracts, carriers, consumers, and the public at large. No amount of studies or documents can paper over that simple fact. Indeed, the burden should be on proponents of new forms of price regulation and new forms of contract foreclosure to demonstrate that such regulation promotes public welfare more than contractual flexibility. Limiting voluntary contracts among private parties, or coercing the terms of such contracts, cannot promote the public interest."

We recommend the following measures in lieu of the proposals in the NPRM:

1. The FCC should not adopt a specific compensation regime to universally cover the costs of interconnection of network traffic since this is not efficient in a market comprised of a variety of types of services and a very dynamic and innovative sector like telecommunications;
2. A fixed end-user charge should not be used to recover termination costs -- instead a wholesale capacity charge which reflects traffic sensitive costs should be used;⁴ and

and the sample principle, when applied to local calls, suggests that the FCC's bill and keep proposal is illegal.

² The argument that companies can shift the burden and recover these costs from end-users does not change the fact that the proposed changes under the NPRM are confiscatory since the changes obligate local phone companies to do something (i.e., increase rates for their customers) which **is not in the companies' interest and damaging to their business**. If it were in the companies' interest, there would be no need for the proposed changes in policy.

³ Statement of Commissioner Harold Furchtgott-Roth regarding the Notice of Proposed Rulemaking, developing a Unified Intercarrier Compensation Regime (CC Docket No. 01-92).

⁴ Per-minute charges are not desirable for covering termination costs under the proposed **Bill-and-Keep** arrangements because they would "tip" the market towards monopoly since consumers would have an incentive to subscribe to larger and larger networks in order to avoid these charges.

3. Any proposed changes must be careful not to undermine the legal authority of state commissions to mediate and arbitrate negotiation agreements governing reciprocal compensation since the FCC only has legal jurisdiction to act if it appears that a state commission is not promoting competition.

I. Purpose of the Statement

This statement addresses the issue of a proposed Unified Intercarrier Compensation Regime as proposed in the Noticed of Proposed Rulemaking (NPRM) of the Federal Communications Commission released in FCC Docket No. 01-132 and CC Docket No. 01-92 for public comment. Comments are due on August 21, 2001, Reply Comments are due on October 5, 2001, and this paper represents the opinions of The National Association of State Utility Consumer Advocates (NASUCA) on the issue of Unified Intercarrier Compensation.

In the present proceeding, rather than analyzing how competitive networks operate, the FCC has proposed to solve the interconnection pricing problem by proposing that interconnection costs be recovered through a Bill-and-Keep regime which the Commission readily acknowledges will likely lead to an increase in fixed customer-access line charges (i.e., flat-rated end-user charges).⁵

The position of the National Association of State Utility Consumer Advocates (NASUCA) is that the changes proposed by the FCC to utilize a Bill-and-Keep system with fixed subscriber line charges is ill-advised for a number of reasons.⁶ Most importantly, the proposed changes violate important principles of network pricing of traffic sensitive costs based on experience and observation in a number of industries, and are inconsistent with the Telecommunications Act of 1996 which clearly mandates cost-based termination rates.

The remainder of this submission is broken into six sections. Section II of the paper describes how interconnecting industries, both regulated and unregulated, price interconnection. Section III focuses on the role of the FCC in markets that are becoming increasingly competitive. Our discussion in Section IV focuses on how the Commission's pricing proposals violate economic efficiency. Section V and VI address implementation and legal issues. In the final section, VII, we argue that the Commission's proposals are inequitable and violate the universal service requirements established by Congress.

The appendixes to this submission provide a more detailed discussion of the two OPP working papers on interconnection that are discussed in the NPRM.

II. Interconnection Rules Should Comport with the Operations of Competitive Markets

⁵ Paragraph 123 of the NPRM states "We recognize that modifying our existing intercarrier compensation rules may affect end-user prices. For example, reforming the existing Calling Party's Network Pays (CPNP) regimes might require a reduction in per-minute charges and an increase in flat charges. Similarly, DeGraba argues that instituting a Bill-and-Keep arrangement should result in a reduction in traffic-sensitive end-user rates, and a concomitant increase in network usage. Such a shift would also likely result in some increase in the flat-rated charges assessed against end users. In addition, while it is possible that, in moving to a Bill-and-Keep regime, carriers would simply charge existing traffic-sensitive termination charges to their end-user customers, it appears equally likely, or more likely, that carriers might modify the rate structure by moving to flat-rated charges. This likewise would result in an increase in flat-rated end-user charges."

⁶ Although technically a Unified Intercarrier Compensation rule need not require Bill-and-Keep and/or fixed subscriber line charges, it is clear from the paper of Patrick DeGraba (OPP Working paper 33, Bill and Keep at the Central Office as the Efficient Interconnection Regime) which is frequently cited in the NPRM that the Commission intends to use fixed end-user charges under the proposed new arrangements -- see paragraphs 96, 117, and 125 of DeGraba's paper.

The FCC's bill-and-keep proposal is contrary to its claimed objective of enhancing market structure and competition. In this section we show that the Commission's proposal is inconsistent with the pricing behavior of competitive, unregulated markets and will impede the development of competing technologies.

The Commission's Proposed Changes are Inconsistent with Decades of Experience in Interconnection in Telecommunications

The history of interconnection of telephone companies, illustrates:

1. The costs of interconnection have traditionally been recovered from the calling party;
2. The practice of calling party pays predates the establishment of state or federal regulation; and;
3. Bill-and-Keep has been adopted in situations where traffic is balanced-- where traffic is not balanced, the carrier on which the majority of traffic originated has made payments to the terminating carrier.

Interconnection between local exchange carriers long-predates the passage of the 1996 Telecommunications Act. Interconnecting carriers did not exclusively rely on either Bill-and-Keep or reciprocal compensation. Bill-and-Keep, whereby there are no termination charges and each carrier is required to recover the costs of termination and origination from its own end-user customers, was adopted where the traffic was balanced. Where the traffic was unbalanced, carriers relied on negotiated agreements between them governing either reciprocal compensation or access charges to recover the cost of interconnection. Historically, legislators and the Commission have been careful not to mandate a one-size-fits-all policy because the interconnected system of telephone networks is too complex.

Interconnection became a contractual issue in 1894 when Alexander Graham Bell's initial patents expired. Beginning in 1894, the Bell System had to enter into interconnecting contracts with Independent telephone companies, and the Independents similarly entered signed contracts with each other that governed the terms of interconnection. Bill-and-Keep was adopted in certain situations, but the most prevalent form of interconnection was revenue sharing. For example, the typical interconnection contract for a toll call required that fifteen to twenty-five percent of the originating revenue be paid to the terminating local exchange carrier.⁷

The contracts discussed in the prior paragraph were established prior to the advent of federal or state regulation of the telephone industry. The terms varied little after regulation was established. Bill-and-Keep contracts were negotiated some of the time, but only where traffic was balanced. In those situations where traffic was out of balance, a settlement payment was made by the company that originated the majority of the calls. This pricing structure was also reflected in end-user rates. The originating party paid for the cost of interconnection. Furthermore, the retail rates were generally designed so that the customers who initiated the calls paid for the calls, rather than having the cost of interconnection distributed evenly among the customers.

⁷ David Gabel, "The Evolution of a Market: The Emergence of Regulation in the Telephone Industry of Wisconsin, 1893-1917," Unpublished Ph. D. Dissertation, University of Wisconsin—Madison, 1987, pp. 171-72.

Examples of Network Pricing from Other Industries Illustrate that the Commission's Proposals are Inconsistent with Experience in other Industries'

The Commission has proposed a plan for a Unified Intercarrier Compensation Regime. It is thus illuminating to look at how networks operate in other industries to better appreciate whether or not the changes proposed by the FCC are consistent with how networks operate. Interconnection pricing is universally used in a large number of industries characterized by networks. Only through interconnection pricing are the proper signals sent with regard to consumption, new investment, and the preservation of the efficient large-scale use of existing infrastructure by new entrants into the provision of network oriented services.

The FCC has proposed that the originating and terminating party split the cost of termination despite the fact that this ignores the incremental costs of network use that are captured by interconnection pricing. Moreover, there are no examples of networks in other industries where termination costs are recovered in the manner proposed by the FCC:

- ◆ The Post Office, FedEx, and United Parcel Service have never proposed that recipients pay the cost of delivering mail and packages to their houses and offices with the minor exception of Cash on Delivery Packages⁹ – the originating party is correctly identified as the one which makes the decision and “causes” the incremental costs of transport and delivery and utilizing local and non-local networks to complete the transaction (this is especially true for “junk” or bulk mail, but also for personal and business mail);
- ◆ ATM machines are another example where charges are assessed on non-network subscribers for using **ATM** machines outside of their network – although the analogy is not perfect here since there is no sender and recipient as with mail or phone calls, the salient point is that the incremental costs of using the network are paid by the party (a non-subscriber) causing the utilization of the network to increase;
- ◆ Credit cards and debit cards are also a powerful example of an industry where interchange fees are assessed and negotiated by credit card associations, but not set by regulatory commissions – this is because collectively set interchange fees cannot generate economic rents for members of the credit card associations and an interchange fee set by government intervention would likely reduce social welfare. Since the interchange fees equilibrate the issuing and acquiring sides of payment card systems, and addresses complex coordination and incentive problems, having independent associations negotiate and set these fees is more competitive and efficient than any regulated solution, and contributes to far wider use of the system;^{11,12,13,14}

⁸ For a more complete discussion of the economics of networks and network pricing issues see: The Economics of Network Industries by Oz Shy, Cambridge University Press, 2001.

⁹ The argument that each of these companies operate as one network and therefore no internetwork charges are required is erroneous since each can be considered to be one company with a large number of interconnected local networks (e.g., each zip code for the post office represents a different local network) each of which covers its cost of operation through compensation from the other networks (either through internal billing practices or superimposed regulation which allocates costs and revenues).

¹⁰ The case of junk or bulk mail and how it is priced by the Post Office is similar to the case of unsolicited telemarketers who make large numbers of calls and rightfully pay the entire costs of these calls rather than sharing them with the call receiver who often receives no benefit from the call.

¹¹ Chang, Howard H. and Evans, David S., “The Competitive Effects of the Collective Setting of Interchange Fees by Payment Card Systems”, Antitrust Bulletin; New York; Fall 2000

- ◆ Airlines pay access fees for using airport gates owned and maintained by competing firms at airports around the world since it is in all parties interest to have guaranteed access on a predictable basis in order to generate more usage of the entire network of airlines -- moreover this provides a good example of where traffic might not at all be balanced (e.g. Company A flies frequently to Company B's "hub", but not vice-versa), and thus an efficient outcome is only possible through negotiated agreements and not reciprocal zero charges for access;
- ◆ International electricity is another example of trading across networks -- the importing country pays the exporting country for the electricity it purchases since its increase in demand causes the incremental costs to the exporters electricity network -- moreover without the potential for trade both countries (or companies in the case of domestic trading) would not be able to capture the efficiencies associated with interregional and intraregional power trading, and thus be more likely to overinvest in their own individual electricity networks;
- ◆ The case of tollways also illustrates the point of access charging for use of a network even though other parties might benefit in addition to the vehicle using the toll road -- merchants who sell products along or near the tollway benefit in the same way that a person receiving a phone call does since they are able to sell to all parties using the tollway, but they do not share the costs of the toll with the driver of the vehicle since the latter is clearly the cost-causer;
- ◆ Bank wire transfers represent another example at both the national and international levels -- when only one financial institution is involved the bank assesses no fee since only one network is being used, but when more than one financial institution is involved in the

¹² Chang and Evans also consider arguments for prohibiting associations from setting interchange fees, and thereby requiring individual negotiations between issuers and acquirers, requiring that the associations have an interchange fee of zero (i.e., the conceptual equivalent of Bill-and-Keep). However, the empirical and theoretical analysis presented in the article clearly show that these interventions would likely decrease social welfare.

¹³ Credit cards are widely used and accepted because card issuers (usually banks), customers (cardholders), merchants, and acquirers (credit card companies which have signed up the merchants) have confidence in the payment systems which coordinates the flow of funds between these various actors -- and without this surety of flow, the system would be underutilized by at least one of the actors -- similarly, telephone users use the phone because they are sure that the various networks have made arrangements for fairly and efficiently sharing the costs of internetwork traffic. In both cases there are positive feedback effects and externalities because the value of the product (credit card or telephone service) to the consumer is higher the more widespread and reliable the coverage of the networks.

¹⁴ The essential point is that credit cards provide an open and joint service to customers, merchants, issuers, and acquirers, and that interchange fees increase the efficiency of the system, and contribute to more widespread use which yields additional benefits to all parties. Thus, without an interchange fee the system would be underutilized or break down since no one party would have an incentive to be the interlocutor for the joint service. Similarly, for telecommunications where the service is also provided jointly to the caller and the call receiver (or receivers in the case of conference calls) efficient provision of service is only possible with an interchange fee (i.e., access charge, reciprocal compensation) which properly allocates the joint costs and joint benefits of phone calls.

transaction, the initiating party almost always pays the cost of the transfer even though the receiving party surely benefits by receiving the money from the sender”; and

- ◆ Finally, roaming charges for wireless communication technologies are another example of a situation where the cost-causer pays for the privilege of using another network on an as-needed basis – the network was created for its subscribers, but the incremental costs attributable to the caller who “roams” onto the network pays these costs.

These examples illustrate a powerful trend in network economics – that the party which causes the increase in network costs pays. This is true in cases where the cost-causer benefits 100% or when the benefits are shared with another party. Moreover, because of the existence of positive network externalities, it is more likely that these externalities will be properly internalized through a cost-causer pays arrangement.

A final point which is illustrated by these examples can also be demonstrated with the concept of money. The purpose of currency (or prices or money) is to reduce the transaction costs of alternative ways of trading (i.e., barter). The universal acceptance of money is what makes the “network” of money workable and efficient as a means of exchange individually, nationally, and internationally – be it through cash, electronic transfer, credit cards, debit cards, checks, or other forms of “money”. Yet, under COBAK, the FCC is essentially saying that we should ignore thousands of years of economic and financial evolution and go back to a barter system (albeit imposed) where companies provide each other termination services free of charge with the blind hope that these even out.

The Commission’s Proposals are inconsistent with the Operations of the Internet

The Internet provides another example of an industry where, when the terms of trade are balanced, parties interconnect through a **Bill-and-Keep** arrangement. Currently the largest carriers use a peering, or **Bill-and-Keep**, arrangement when they interconnect. Smaller ISPs, on the other hand, pay for the privilege of interconnection to backbone carriers by leasing lines from one of the major backbone operators. Or stated differently, where the benefits of interconnection are unbalanced, carriers in this unregulated market enter into a commercial relationship in which the party who provides a greater service to the smaller network receives compensation from the smaller carrier. Conceptually the payment by the smaller carrier is the same as in the world of telecommunications where the network that originates the majority of the minutes of traffic compensates the terminating network.

Michael Kende’s OPP’s Paper on *Internet Backbones*¹⁵ highlights two major flaws with the Commission’s **Bill-and-Keep** proposal. The linchpin of the DeGraba paper” is the assumption that on average terminating and receiving parties obtain equal benefit from a telephone call. DeGraba offers no evidence to support this hypothesis. When confronted with a similar issue of who benefits from the transmission of information over the Internet, Kende stated, rightly, that “if a transmission is a Web page, it is not clear who received more benefits from the

¹⁵ Although it is true that some receiving parties do charge commissions and fees on receiving funds (e.g., Western Union), this is usually for parties which do not have banking accounts -- banks do not charge fees to their customers for receiving funds from outside sources since this would discourage use of their services.

¹⁶ Michael Kende, “The Digital Handshake: Connecting Internet Backbones,” Office of Plans and Policy Working Paper No. 32, September 2000, p. 8.

¹⁷ Patrick DeGraba (OPP Working paper 33, **Bill-and-Keep** at the Central Office as the Efficient Interconnection Regime).

transmission – the customer that requested the Web page or the content provider that supplied the information. In fact, both benefit from the ability to use the Internet to initiate cross-border transactions that may never have occurred but for the Internet.”¹⁸

In the footnote corresponding to the text, the author of the paper stated: “The same is often true for a telephone call that may lead to a transaction that benefits both parties. However, in telephony, explicit mechanisms exist for either the calling party or the called party to pay for a particular call. In general, the calling party pays, but the calling party may place a collect call, which the called party can either accept or refuse, or the called party can pay in advance for all incoming calls by providing a toll-free 800 number.”¹⁹ NASUCA contends that the author of the *Backbone* paper was correct to exercise caution about how the benefits of communications may be split between the calling and called parties. It logically follows that whereas there is no basis to assume how the benefits of a web page transmission are shared between parties, neither should the Commission assume that the benefits of a telephone call are split evenly. Rather we should continue to rely on various rate schemes depending on the distribution of benefits (i.e. collect, 800, and calling-party-pay calls).

The *Internet Backbone* paper is also instructive in terms of the perverse incentives provided by the proposed Bill-and-Keep mechanism. Kende discusses the implications of the interconnection payments on the ability of the Internet to implement quality-of-service standards. Kende points out that under the current Bill-and-Keep payment mechanism, ISPs have little incentive to provide good quality of service for traffic that originates on another network. Whereas there is no payment for terminating traffic, backbone operators “will have no incentive to increase capacity to receive traffic from other backbones.” He adds that traffic “will face congestion and may not provide satisfactory quality”. Kende suggests that in order to insure that there is adequate service, backbones may have to “implement a traffic-sensitive settlement system for such traffic”.²⁰ In light of the serious quality of service problems associated with the Bill-and-Keep system, we strongly urge the rejection of the plan described in the NPRM.

It is interesting to simultaneously consider the DeGraba, Atkinson, and Barnekov papers on interconnection and Kende’s paper on the Internet. The interconnection papers contend that due to the threat of Voice over the Internet telephony, there is a need to eliminate access fees. The papers contend that Internet telephony will be essentially free and therefore in order to make traditional circuit switching competitive with Internet telephony, access fees should be eliminated. However, at the same time, the OPP is pointing out that unless traffic sensitive access fees are established for Internet telephony, the service will be unsuccessful because of quality of service problems. Unless there are payments for terminating traffic, the quality of service will be poor and the service will not take off. Therefore, paradoxically, the FCC has proposed in its NPRM a regulatory structure that likely leads to under investment in the public switched network and an impediment to the development of Internet telephony. Internet

¹⁸ Id. P. 37

¹⁹ Id., ff. 144.

²⁰ Id., p. 28. Arguably underinvestment in the public switched network could be avoided if the retail rates recover the traffic sensitive costs that are currently recovered through interconnection and access fees. The Commission should not rely on such a belief because it has intentionally left alone the issue of how these costs would be recovered in the retail sector. Rather it has said that this is a problem that the “market” can resolve. Furthermore, given the market failure described by Kende in this area, the Commission should be reluctant to assume that adequate arrangements will emerge to solve the problem.

telephony will be harmed because it will be harder to develop the service because the FCC will have effectively mandated the subsidization of long-distance calls.

Finally, to highlight that the Internet is hardly an example of a network industry that relies exclusively on Bill-and-Keep, consider broadband transmissions on the Internet. When an end-user requests a video-stream from a broadcaster, the broadcaster makes a payment to the end-user's Internet Service Provider that terminates the transmission. Furthermore, "[c]ontent providers must pay per-stream licensing costs to RealNetworks or Microsoft or Apple Computer, so that customers can view video in RealPlayer or Windows Media Player or QuickTime."²¹ The broadcasters' payments to the ISPs and to firms like RealNetworks reflect that where a network or software is used to deliver a broadcast, the sender makes a payment for use of other parties' facilities.

The Commission's Proposals would have an Adverse Impact on the Use of the Internet for Telecommunications

Paragraph 2 of the NPRM notes that the Commission "seeks comment on whether imposing any particular unified intercarrier compensation regime only with respect to rates that we currently regulate would lead to distortions or other problems that would undermine the benefits of that regime. We emphasize at the outset that we seek an approach to intercarrier compensation that will encourage efficient use of, and investment in, telecommunications networks, and the efficient development of competition."

One of the distortions associated with the Commission's proposed Unified Intercarrier Compensation Scheme is that it will discourage the use of the Internet for telephone services. Although Internet telephony is only an emerging technology at this point in the United States, Bill-and-Keep billing would reduce the incentive for the emergence of this technology by making it more expensive to use the internet for telephone calls since Internet Service Providers would potentially have to pay higher termination costs.²²

The Commission's Proposals do not Treat Commercial Mobile Radio Services (CMRS) and Fixed-Line Services Consistently and Evenly

Wireless technologies most certainly compete with fixed-line telephones, and thus regulations regarding termination charges for fixed-line calls must take into account the implications for wireless technology. There is a strong economic argument for callers paying termination charges due to the additional benefits of being more certain that they can receive calls from owners of wireless/mobile devices (see discussion of Network Externalities below). At the same time, regulation of termination charges governing CMRS should be consistent with the proposals under the NPRM. Yet, they are not.

²¹ Claire Tristram. Massachusetts Institute of Technology. *Technology Review*, June 2001. "Broadband's Coming Attractions," <http://www.technologyreview.com/magazine/jun01/tristram.asp>

²² COBAK will encourage LECs to recover their traffic sensitive termination fees from the end-user. If a rate design emerges in which the amount of money an end-user pays is dependent on the amount of traffic terminated on the line, ISPs will have to pay higher telephone charges. The ISPs will have to recover their increased charges from their retail customers. COBAK therefore reduces the incentive for IP telephony since ISPs will have to charge higher rates for Internet service in order to cover the cost of receiving calls under COBAK.

The NPRM starts off noting that there is no market failure in Commercial Mobile Radio Services (CMRS) connections from one CMRS to another. The operations of the wireless carriers would therefore seem to provide an interesting model of how competitive markets operate. CMRS operators hardly operate their networks on a Bill-and-Keep basis. Furthermore, with the addition of broadband services over wireless networks, it is clear that network operators are hardly offering to terminate traffic from other providers for free. Rather CMRS operators are developing and seeking products that permit them to earn revenue from the broad array of new services that their networks will provide. It makes no sense that this mode of charging is acceptable for CMRS but not for landline operations.

In fact, the Commission has decided not to regulate CMRS services with respect to Bill-and-Keep or Calling Party's Network Pays (CPNP), but instead has opted to let the market decide.²³ It is perplexing that the Commission would not extend this same market principle to the fixed-line services. Thus not only is the current NPRM on Unified Intercarrier Compensation inconsistent with the decision of the Commission to not set any rules regarding termination charges for wireless services, but it also distorts the market since both wireless and wireline technologies are used to provide telephone services.

For wireless technology, the Commission terminated its proceedings in April of 2001 regarding establishing rules for termination charges. In the *Order Terminating Proceeding*, the FCC stated "we decide to terminate this proceeding"²⁴ because it is not clear that regulatory intervention by this Commission is warranted. Our existing rules do not prevent a carrier from offering a calling party pays service to its subscribers. Based on the record before us, we believe it best not to adopt any specific rules to govern calling party pays. In deciding not to adopt rules at this time, we remove any remaining regulatory uncertainty calling-party-pays occasioned by the pendency of this proceeding."²⁵

In order to effectively set or regulate termination charges, it is clear that the FCC must take into account the effects its proposed changes for a Unified Intercarrier Compensation Regime would have on consumer and investor decisions. This is clear from the statements of Chairman Powell (see discussion below at page 14) on promoting the use of market forces. Abstracting from the reality that telephone service competes with countless other forms of communication (e-mail, post, internet, etc.) one can look exclusively at the case of telephone services to realize that the proposed Bill-and-Keep regime only looks at termination charges for a subset of the market for telephone service and types of network interconnections, and therefore would introduce distortions in consumer and firm behavior.

Under the Commission's proposed changes, Bill-and-Keep would apply only to LEC-LEC, CMRS-LEC, and LEC-CMRS calls.²⁶ Yet this ignores wireless to wireless connections.

²³ See, for example, "FCC Terminates Proceeding On Calling-Party-Pays Billing", *Telecommunications Reports*, April 23, 2001,

²⁴ Calling Party Pays Service Offering in the Commercial Mobile Services, WT Docket No. 97-207, *Notice of Proposed Rulemaking*, 14 FCC Rcd 10861, 10872-10917 (1999).

²⁵ In the Matter of Calling Party Pays Service Offering In the Commercial Mobile Radio Services: Memorandum Opinion and Order on Reconsideration and Order Terminating Proceeding. April 9, 2001. WT Docket No. 97-207.

²⁶ Paragraph 2 of the NPRM states "We do not expect that we will extend intercarrier compensation rules to Internet backbones, on which we do not currently impose rate-making regulation. Neither do we expect to extend compensation rules to other interconnection arrangements that are not currently subject to rate

Moreover, wireless service is increasing at a faster rate than fixed-line service, and termination charges for wireless calls are not regulated by the FCC which has decided to allow the market to determine termination costs and charges. Thus, the proposed changes do not really reflect a “Unified” Intercarrier Compensation Regime at all – this is a misnomer, and misnomer which will become more pronounced in the future as the ratio of fixed line to wireless line use continues to fall.

The Commission’s Proposals are Inconsistent with Market Pricing Practices

NASUCA has provided an extensive summary of pricing from other industries because the FCC’s Bill-and-Keep proposal is at variance with the manner in which network industries, both regulated and unregulated, operate. We find striking that in developing its “unified theory,” the Commission’s working papers are almost devoid of any reference to the manner in which networks interconnect. The one industry that the papers rely on, the Internet, does not provide support for Bill-and-Keep. Bill-and-keep, or peering, is used on the Internet, when networks are comparable in size. Bill-and-keep is not used when the networks are not of equal size or when the flow of traffic is asymmetrical. When traffic or networks are out-of-balance, payments are made that similar to reciprocal compensation in telephony.

In the spirit of Herbert Simon, in developing a unified economic theory of interconnection, the FCC should give greater attention to how markets operate:

Biologists have described millions of species of plants and animals in the world, and they think they have hardly started the job. Now, I’m not suggesting that we should go on out and describe the decision making in a million firms; but we might at least get on with the task and see if we can describe the first thousand. That does not immediately solve the aggregation problem, but surely, and in spite of the question of sampling, it is better to form an aggregate from detailed empirical knowledge of a thousand firms, or five, than from direct knowledge²⁷ of none. But the latter is what we have doing in economics for too many years.

III. Interconnection Rules Should Better Take into Account the Role of Markets and the Role of the FCC as Regulator

The Commission’s Proposals are Inconsistent with the Current FCC Philosophy on the Role of Markets

Although the purpose of this statement is not to provide a historical analysis of the role of the FCC in regulating US telecommunications markets, it is illuminating to look at some of the overriding principles which current policymakers say should be guiding current regulation. In this way, one can better appreciate if the Commission’s proposed changes violate any of its basic principles – and we believe they do.

Chairman Powell has clearly stated on many occasions that the role of the FCC is to enhance market structure and competition, and not to impede it. “I have a greater confidence in proper

regulation and that do not exhibit symptoms of market failure thus, we do not contemplate a need to adopt new rules governing CLEC-to-CLEC, IXC-to-IXC, CMRS-to-CMRS, or CMRS-to-IXC arrangements.

²⁷ Herbert Simon, (1992). Colloquium with H.A. Simon. In M. Egidi & R. Marris (eds). *Economics, Bounded Rationality and the Cognitive Revolution*, Brookfield, Vermont: Edward Elgar Publishing Company, p.20.

market structure as a way of disciplining market behavior. Regulators have to be a lot more sophisticated about how their decisions affect the capital market. If you're a believer in markets and a believer in less prophylactic regulation, you can't throw the public interest in the toilet"²⁸, Powell said. "You have to be prepared to demonstrate that you're sincere that in allowing the additional flexibility in markets that you would also try to act effectively, efficiently and swiftly to police the very rules that are in place," he said.²⁹ "As you all well know, I am committed to building policy that is centered around market economics."³⁰

With regard to effects on consumers, which NASUCA is most concerned about, Chairman Powell states:³¹

"A well-structured market policy is one that creates the conditions that empower consumers:

- ◆ It lets consumers choose the products and services they want— which is their right as free citizens;
- ◆ It breeds entrepreneurs—giving an opportunity for someone with a good idea the chance to build a business and acquire wealth and opportunity. Something few, if any, nations have done as well as this country;
- ◆ It creates a fertile environment for innovation. Innovators know they have the prospect of reaping great rewards (if they take great risks) and consumers get the benefits of the latest products and latest services; and
- ◆ It allows market forces to calibrate pricing to meet supply and demand.

Consumers get the most cost-efficient prices and enjoy the benefits of business efficiencies. The result for consumers is better, more cutting edge products, at lower prices."

Yet, under the NPRM's proposal for a Unified Intercarrier Regime, market economics and market policy as an instrument for empowering consumers, are relegated to the bench since negotiated agreements would be scuttled in favor of a unilaterally set policy with no prices or market signals for the incremental internetwork costs of telephone calls. At the same time, there is not a shred of evidence that the proposed changes would be in the "public interest". In fact, the proposed changes would largely not be in the public interest because they send improper signals on technology choices (and hence their effects on capital markets), and at the same time harm individual consumers who will likely pay higher prices for poorer service.

The Commission Should Continue to Rely on Competitive Markets to Control the Reasonableness of Access Rates

²⁸ FCC's Powell Lays out Framework for Reform, April 4, 2001 -- (Reuters) – <http://www.clec-planet.com/news/000104/april04fcc.html>

²⁹ Ibid.

³⁰ Consumer Policy in Competitive Markets. Speech to the Federal Communications Bar Association, http://www.fcc.gov/commissioners/powell/mkp_speeches_2001.html. Washington, D.C., June 21, 2001.

³¹ Ibid.

The NPRM effectively amounts to the Commission reducing access fees to zero (see paragraph 9 of the NPRM) despite its recent pronouncements that it would rely on competitive markets, rather than regulatory fiat, to govern the future evolution of access rates. In CALLS, some parties advocated that the Commission continues to rely on price caps to reduce the access fees. Opponents of the CALLS Proposal contended that the proposal effectively eliminated price cap regulation by ceasing the X-factor adjustment after target rates are reached. According to its opponents, the CALLS Proposal wrongfully assumed that LECs' costs are changing at the rate of inflation and are not affected by productivity gains.

In response to this criticism, the Commission stated: "We reject these contentions in the overall context of the CALLS Proposal...We believe that increased competition will serve to constrain access rates in the later years of the CALLS Proposal as X-factor reductions are phased out. We believe that market forces, instead of regulatory prescription, should be used to constrain prices whenever possible... After the five-year CALLS term we can re-examine the issue to determine whether competition has emerged to constrain rates effectively."³²

The Commission expressly rejected a proposal to lower termination fees to the economic cost of production. Again, the Commission stated that its policy was to rely on competitive markets, rather than regulatory fiat: "As a policy matter, we have determined that a market-based approach, instead of a prescriptive approach in which we set access charge rates at economic cost levels, better serves the public interest. We believe that the target rates we are adopting are a reasonable transitional estimate of rates that might be set through competition."³³

The NPRM has failed to address why the Commission has decided that it must renounce its dependence on competitive markets and instead rely on regulation to draw down access fees. We note that the NPRM has been issued less than one-year after the CALLS was published and the Commission has failed to identify any factors that would explain why it is reversing its commitment to not consider using regulation to modify access fees prior to the expiration of the CALLS five-year term. Neither has the Commission explained why relying on markets is no longer in the public interest. NASUCA finds the Commission's proposal to replace usage sensitive terminating access fees with a fixed customer charge bewildering in light of the Commission's long-held view that economic efficiency dictates that traffic sensitive costs be recovered through traffic sensitive rates.³⁴ The case of other industries and how competition is used to assess internetwork charges is illustrative.

IV. The Commission's Should Not Renounce its Prior Belief that Basing Interconnection Prices on TELRIC Is Workable

³² In the Matter of Access Charge Reform Price Cap Performance Review for Local Exchange Carriers Low-Volume Long-Distance Users Federal-State Joint Board On Universal Service (CALLS Order), FCC 00-193, released May 31, 2001, Par. 166.

³³ Id. Par. 178.

³⁴ "In promulgating its access charge rules, the Commission has recognized that, to the extent possible, costs of interstate access should be recovered in the same way that they are incurred. This approach is consistent with principles of cost-causation and promotes economic efficiency. Thus, non-traffic sensitive costs should be recovered through fixed, flat-rated fees. Similarly, traffic sensitive costs should be recovered through corresponding per-minute access rates." CALLS, FCC 00-193, at ¶12.

Measuring the Costs of Call Termination is Workable

The DeGraba paper expresses skepticism about the ability of regulators to accurately measure the cost of terminating a call.³⁵ NASUCA finds that proposition rather odd in light of the FCC's prior findings that the cost of unbundled network elements and interconnection should be based on the economic cost of service. Furthermore, such a finding would contradict the Commission's recent assertion to the Supreme Court that basing interconnection prices on forward-looking costs is workable.³⁶ We are concerned that if the Commission concurs with DeGraba that it is not possible to obtain a good estimate of the cost of service, the Supreme Court will be more likely to concur with the Eighth Circuit court that these prices should not be based on a hypothetical estimate of costs. We anticipate the Supreme Court asking the FCC, "if you don't believe that the cost of switching can be measured adequately, why should we conclude that other element costs can be properly measured using TELRIC?" The Supreme Court is likely to take note of the fact that the FCC's NPRM, and the DeGraba paper, have essentially failed to offer any explanation of why it would be difficult to estimate the cost of termination.

This brings us to our second concern about DeGraba's assertion that it is difficult to estimate the cost of service. We have participated in cost dockets throughout the nation and we are aware of no Commission finding that suggests that there is an insurmountable problem associated with measuring the cost of terminating calls on switches. There are challenging issues that have to be resolved, but the issues that arise with switching are no more perplexing than the costing problems associated with loops or interoffice transport. Indeed, as we will show below, we believe if anything, it is easier to estimate the cost of switching than network elements, such as the loops.

The cost of terminating interoffice trunks can easily be estimated and verified by a State Commission or the FCC. On a digital switching machine interoffice trunks are terminated on a trunk card. The trunk card handles two DS1 connections. Ten DS1 cards are housed in a digital trunk controller. Two digital trunk controllers reside on a digital trunk equipment frame.³⁷ The incremental capacity investment of a DS1 connection is simply the sum of the following items (assuming that there are two DS1 trunks per card):

DS1 trunk card investment / 2 DS1s
 + digital trunk controller investment / (10 cards * 2 DS1s per card)
 + digital trunk frame investment / (2 digital trunk controllers * 10 cards per controller * 2 DS1s per card)
 = capacity cost of ds1 termination

The cost of each of the three switching components (DS1 card, digital trunk controller, digital trunk frame) is easy to ascertain and validate. The cost of each item is recorded on the ILEC's detailed continuing property records. Furthermore, pricing data can be obtained from the vendor.

³⁵ See, for example, DeGraba, paragraphs.69 and 91.

³⁶ Verizon argued in its recent petition to the Supreme Court that "any forward-looking approach, which asks what it would cost to replace the functions of network facilities in today's market, is so 'administratively unworkable' that the FCC lacks discretion to adopt it. Verizon Pet. Br. 44-48". The FCC responded, "That claim is unsound." Brief for Respondents, Verizon Communications, Inc., et al., v. Federal Communications Commission, et al., June 2001, Nos. 00-511, 00-555, 00-587, 00-590 and 00-602, p. 46.

³⁷ Nortel System Practice 297-1001-450.

The capacity cost must then be adjusted to reflect the spare capacity that resides on an efficient network. For example, the network might contain about 5% spare capacity. Therefore the incremental investment for the DS1 connection is as follows:

Capacity cost of dsl termination / 95% = incremental investment for DS1 termination; and

The investment estimate is then converted to a monthly cost through the use of an annual charge factor.

The incremental investment might be increased to recover a portion of the fixed investment in the switching machine (i.e., an allocated portion of the getting started investment of the switch). The loading for the getting started investment, along with a loading for power and other miscellaneous investments, might increase the investment by a small amount. The loading will convert the investment estimate from an incremental to a TELRIC value.

The beauty of this simple calculation is two-fold. First, the methodology is based on the engineering practices of the switch engineers. Therefore it is a trivial exercise to verify the reasonableness of the calculations. Second, the resulting termination cost sends the appropriate price signal to interconnecting firms. The price reflects the actual cost incurred when an interoffice trunk is terminated on a switching machine. The trunks are designed to insure adequate capacity during the peak calling period. The interconnecting firms will pay for the capacity costs that they cause the terminating firm to incur.

By relying on capacity charges, rather than a per minute rate, the FCC is able to avoid the problems with the per minute rate scheme that are identified at paragraph 38 of the NPRM -- namely that per-minute reciprocal compensation rates may also give carriers the opportunity and incentive to leverage their position by seeking end users with disproportionately more incoming traffic. This problem is avoided because capacity charges represent a cost-based rate that reflects the costs incurred in terminating traffic. There is no charge for terminating off-peak traffic, but unlike the COBAK proposal, there is a charge for terminating traffic during the peak hour. This results in an economically efficient wholesale pricing structure, a claim that cannot be made by the proponents of Bill-and-Keep.

Collocation of ISPs with CLECs are not a Result of Regulatory Arbitrage as the Commission States

In the ISP Intercarrier Compensation Order,³⁸ and its accompanying Notice,³⁹ the FCC questions the efficacy of the current intercarrier compensation mechanism for the termination of local traffic. The FCC argues that the existing intercarrier compensation mechanism, in which the originating carrier pays a competing carrier for terminating a call,⁴⁰ may have created opportunities for regulatory arbitrage and distorted the economic incentives relating to competitive entry into the local exchange and exchange access markets. While the FCC states that such market distortions relate not only to ISP-bound traffic, the FCC avers that:

³⁸ In the Matter of Intercarrier Compensation for ISP-Bound Traffic, CC Docket No. 99-68, *Order on Remand and Report and Order*, FCC 01-131 (rel. Apr. 27, 2001) ("*ISP Intercarrier Compensation Order*").

³⁹ Developing a Unified Intercarrier Compensation Regime, CC Docket No. 01-92, Notice of Proposed Rulemaking, FCC 01-132 (rel. April 27, 2001) ("*Unified Intercarrier Compensation NPRM*" or "*Notice*").

⁴⁰ This is commonly referred to as "reciprocal compensation".

“the regulatory arbitrage opportunities associated with intercarrier payments are particularly apparent with respect to ISP-bound traffic, however, because ISPs typically generate large volumes of traffic that is virtually all one-way -- that is, delivered to the ISP. Indeed, there is convincing evidence in the record that at least some carriers have targeted ISPs as customers merely to take advantage of these intercarrier payments.”⁴¹

The fact that the traffic exchanged between ILECs and CLECs is significantly out of balance is incontrovertible. However, the conclusions that are allegedly supported by this fact are dubious. The mere existence of imbalanced telecommunications traffic does not demonstrate that the current intercarrier compensation mechanism is inherently flawed or that the reciprocal compensation rates established by the state commissions are gratuitous. Based on the evidence at hand it is irresponsible and premature for the FCC to conclude that inefficient termination charges appear to have caused CLECs to target customers that primarily or solely receive traffic, particularly ISPs, in order to become net recipients of local traffic.⁴² If attracting customers who receive more local traffic than they originate is the fundamental force motivating CLECs to attract ISP business why don't we observe a similar “problem” with businesses that use toll-free numbers for incoming traffic?

The FCC acknowledges that there may be sound business reasons behind a CLEC's decision to serve a particular niche market, in this case ISPs,⁴³ however, these reasons are apparently ignored by the FCC in its decision-making. Further investigation would indicate that CLECs, serving ISPs, are executing sound business plans based upon economic efficiency and consumer need.

It should come as no surprise that CLECs have targeted ISPs as customers. Since before the passage of the Telecommunications Act of 1996 it has been well understood that fledgling LECs would, at least in the early stages of competition, primarily target businesses and other high margin telecommunications customers. Empirical evidence suggests that the Internet expanded rapidly around same time the Telecommunications Act opened the door for competitors to provide local telecommunications services in 1996 -- with the percentage of households with internet access expanding from 17% to 42% from 1996-2000.⁴⁴ The marketplace for ISPs expanded significantly at the same time that newly formed CLECs began searching for customers to serve. While ISPs are only one type of business customer, there is a fundamental difference between ISPs and other businesses that made their business more attractive to the CLECs. The CLECs may have had an easier time attracting an ISP's business because there were no longstanding relationships with ILECs to overcome, and local number portability was not a concern.⁴⁵

⁴¹ *ISP Intercarrier Compensation Order* at ¶12

⁴² *Notice* at ¶11.

⁴³ *ISP Intercarrier Compensation Order* at ¶70.

⁴⁴ <http://www.ntia.doc.gov/ntiahome/fttn00/chartsOO.html#7> figure 1-1

⁴⁵ Currently, the technical and regulatory issues surrounding local number portability have been resolved, however, immediately following the passage of the 96 Act these issues were a great cause of concern for CLECs and their potential customers. Most businesses would not consider changing local carriers if it meant that they would have to, at a minimum, abandon their existing telephone numbers.

The beneficial relationship between CLECs and ISPs is clearly not a one-way street. CLECs and ISPs have become natural business associates because CLECs also provide certain synergies that are not present in the ILEC-ISP relationship. In order to avoid unnecessary switching and transport costs⁴⁶ ISPs require the ability to aggregate Internet bound traffic in a facility that is collocated with a LEC's facilities. Collocation is normally not offered to ISPs by ILECs because the FCC declined to require that ILECs make collocation space available to Enhanced Service Providers ("ESPs").⁴⁷ Without a specific mandate to provide collocation space ILECs have demonstrated that they will not offer collocation to outside firms. Even with explicit instructions the ILECs have shown a desire to deny or delay offering collocation facilities.⁴⁸ Furthermore, ILECs do not have the same interest in competing with CLECs for ISP business, based on terms of collocation, because it would have a resounding impact on every rate the ILECs could charge for collocation facilities. It is apparent that the ILECs have made a conscious decision not to compete for the business of ISPs because it may well result in the ILECs having to offer collocation facilities at rates and terms that would encourage competitive entry into the ILECs core telecommunications markets.

The FCC has failed to provide any evidence that the traffic imbalances observed for CLECs serving ISPs is a result of structural flaws in the intercarrier compensation mechanism, or reciprocal compensation rates that have been set at excessive levels by the state commissions. Conversely, there is evidence indicating that CLECs have gained a disproportionate share of ISP business because the CLECs made a conscience effort to tailor collocation rates and services to the fast growing ISP market. The cost savings provided by the CLECs to the ISPs through collocation are substantial.⁴⁹ Therefore, the FCC should not contribute to the ILECs anticompetitive tactics by eliminating just and reasonable reciprocal compensation payments that are required by law. Rather, the FCC should do more to encourage the ILECs to comply with the competitive provisions of the 1996 Act.

⁴⁶ See: Connecting Homes to the Internet: An Engineering Cost Model of Cable vs. ISDN. Master Thesis of Sharon Eisner Gillett, Massachusetts Institute of Technology, 1995. "Notice that if the number of T1 lines into the Internet provider grows large enough, an economic incentive is created for the Internet provider to co-locate its facilities with a telephone company Central Office, to minimize distance-sensitive T1 tariffs." at page 73; "The significant cost of the leased T1 lines needed to connect the Internet service provider to the local telephone network highlights another business and policy implication: ISDN Internet service would cost less to provide if these lines were not needed." at page 152; "One way to eliminate (or reduce) these T1 line charges is to co-locate the Internet service provider with the local telephone company Central Office (just as the cable Internet service provider expects to co-locate with the cable head end). In that scenario, an external T1 circuit is replaced with an intra-office wire." at page 153. The thesis is available at <http://itel.mit.edu>.

⁴⁷ See: *In the Matter of Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket No96-98, *First Report and Order*, FCC 96-325 at paragraph 581.

⁴⁸ The ILECs have generally viewed collocation as an attack on their business. **Wall Street Journal** article August 9, 2001, titled "Covad Blames Its Recent Troubles On Bells' Anticompetitive Tactics" <http://interactive.wsj.com/archive/retrieve.cgi?id=SB997325985752689883.dJm>.

⁴⁹ Research has shown that the cost of transport is a significant portion of an ISP's total cost of providing service. See: A Cost Model of Internet Service Providers: Implications for Internet Telephony and Yield Management. Master Thesis of Brett A. Leida, Massachusetts Institute of Technology, February 1998. <http://itel.mit.edu>. Therefore ISPs have a strong economic incentive to seek out LEC's that permit collocation. Ameritech referenced these cost savings in its submission to the FCC in FCC 01-131: "Ameritech maintains that it costs CLECs less to deliver ISP-bound traffic than it costs incumbent LECs to deliver local traffic because CLECs can reduce transmission costs by locating their switches close to ISPs. [footnote omitted]" Par. 92. The FCC order in 01-131 did not address the implications of these cost savings on the inducement for ISPs to obtain service from CLECs.

V. The Commission's Proposals Violate Economic Efficiency

The Commission's Proposals do not Accurately Reflect Who Benefits from Phone Calls

The foundation of the FCC's proposed changes and the concept of Bill-and-Keep Unified Intercarrier Compensation is that the caller and the call receiver equally benefit from the call, and that this should be reflected in termination charges. However, there is no evidence that this is true. Moreover, the case of Network Externalities below strongly supports the argument that the caller benefits more than the receiver, and a calling party pays system is more likely to capture these network externalities.

We do not deny that the call receiver benefits from SOME calls, but it is impossible to say how the benefits of the call are shared, and therefore it is bad policy to assume that both parties benefit equally, and to base policy changes on this assumption. For example, calls from telemarketers surely benefit the caller more than the receiver, and many would argue that these calls have negative value for the receiver since he/she is likely not to be interested and is interrupted in the middle of another activity.

The fact that call receivers have the option of having toll-free numbers (e.g., like many businesses choose to do to encourage more business) suggests that call receivers have the option of purchasing a specific service which encourages them to receive more phone calls, and that the network is not underutilized as suggested by the Bill-and-Keep argument that callers make less calls since they must bear the entire costs of the call rather than sharing them with the receiver on the interexchange level.

Under toll-free services, the call receiver pays because it has decided that the benefits justify the additional costs incurred – whereas customers who choose not to have toll free numbers are implicitly saying that they benefit more by making phone calls than receiving them. The case of Extended Area Service below and its analogy to internetwork sharing of costs also further illustrates the principles which have historically argued for the cost-causers also being the cost payer.

The Experience of Extended Area Service Suggests that the Commission's Proposals Contradict Past Practice⁵⁰

In response to requests from certain customers, and in order to reduce billing costs, telephone companies have replaced many short haul toll calls with extended area local service. Extended Area Service was traditionally offered on an optional basis so that subscribers would not have to "pay for more service than they need".⁵¹ Non-optional extended area service was offered "where a large majority of customers desire extended service or where the difference in rate is small..."⁵²

⁵⁰ Extended area service is "telephone service within an area served by an interconnected system of exchanges...where intercommunication between subscribers' stations is covered by an exchange service charge rather than by a toll charge." National Association of Railroad and Utilities Commissioners (NARUC) and Federal Communications Commission (FCC), Message Toll Telephone Rates and Disparities (Washington:n.p. 1951), p. 428.

⁵¹ Ibid. p. 94, 297 (quote).

⁵² American Telephone and Telegraph Company, "Fundamental Principles Underlying Rates for Exchange Telephone Service," 1947, p. 32.

The determination of which exchanges should be interconnected for local calls has been based on analysis of community of interest.⁵³ Community of interest is typically measured in terms of calls originating on one network and terminating on another. When sufficient traffic originates on one network, and terminates on the other, regulatory commissions have concluded that there is a sufficient community of interest to justify the investment in extended area calling.⁵⁴ The cost of the extended area calling has often been recovered from the party that originates the call.⁵⁵

The Commission's Proposal Ignores Significant Network Externalities

Telephone calls are characterized by "joint demand" since there are at least two parties involved in any call. Similarly, the call is "jointly provided by both the caller's and the call receiver's network. Consequently, the issue arises as to how to allocate joint costs. In a world with no externalities (positive or negative) and perfect information this would be straightforward since the parties would be expected to share the costs in proportion to the benefits they receive from the call. In the real world, however, it is impossible to allocate the benefits to the calling and called parties, and thus problematic to ascertain how costs should be shared.

Still, in general, costs should be allocated in accordance with willingness to pay, and a key failure of Bill-and-Keep regimes is that they do not recognize that the called party may often have a much lower willingness to pay than the calling party. In fact, the assumption that the called party has no willingness to pay may be closer to reality in many situations, than the implicit assumption under Bill-and-Keep that the willingness to pay of calling and called parties is always equal. If the Caller has a higher willingness to pay, then termination charges would only be efficient if set in a way that calling parties bear the bulk of the costs of the networks.

Positive network externalities suggest that using a Calling Party Pays system as opposed to Bill-and-Keep is more likely to internalize positive network externalities between calling and called parties, and is one of the main justifications for interconnection charges. Suppose that as a result of the called party being able and willing to accept a call, the calling party receives a direct benefit. This is an externality flowing from the called party to the calling party. Assuming, as is likely the case, this externality is larger compared to the externality going in the other direction (which would seem logical since the call was initiated by the caller who presumably has higher willingness to pay), then there may be efficiency grounds to have the calling party subsidize the called party.

The incentive required to capture positive network externalities can be enacted through a termination charge. A termination charge received by the terminating network will, through competition, be passed back to the called party by way of cheaper retail prices for services provided. If the calling party funds this termination charge, then this could be an efficient

⁵³ NARUC and FCC, Message Toll Telephone Rates, p. 91, 93.

⁵⁴ In almost all Ohio cases, the major cost of Extended Area Service is lost access charges, not facilities investment.

⁵⁵ See, for example, Washington Utilities and Transportation Commission, 98/11/16 UT-970545 Expanding Local Calling Telecommunications General Rule Making, November 16, 1998, <http://www.wutc.wa.gov/webdocs.nsf/be4e5cc09d8c87408825650200778c6b/c4aa23882c4d9d29882566be007d1a3f!OpenDocument>.

transfer between the two types of callers.⁵⁶ However, by imposing Bill-and-Keep, or giving networks the option of doing so when it is in their individual interests to adopt the principle, such transfers will be eliminated. This will lead to serious inefficiencies where there are significant network externalities.

The Commission is well aware of the existence of positive network externalities and has noted this in a previous NPRM.⁵⁷ With respect to the concept of Calling Party Pays (CPP) for wireless services, the Commission notes “there is significant evidence that CPP would help encourage CMRS subscribers to leave their handsets on and available to receive incoming calls because they would not be incurring as high a cost for receiving calls on a usage-sensitive basis. This increases the use of mobile wireless services, and provides certain benefits to both calling parties, who otherwise would not be able to complete calls to CMRS subscribers who keep their phones off, and CMRS subscribers, who would no longer have an economic incentive to avoid or minimize the acceptance of calls.”

The Commission goes on to note that “these benefits may be especially significant for price-conscious customers who find that the flat-rate plans that come with large numbers of minutes included are too expensive. CPP would also be beneficial to those consumers concerned with the ability to control their monthly telecommunications expenses. Thus, CPP holds the potential for making mobile wireless services more effectively available to large numbers of customers who do not subscribe today or who strictly limit their usage, and to spur further competition by offering a different service option that may be particularly attractive to low-income, and low-volume and mid-volume consumers.”

The Commission’s Proposal Violates Economic Efficiency

Aside from the argument that the cost-causer is not the cost-payer, there are a number of reasons that a Unified System of Inter-carrier Compensation based on Bill-and-Keep arrangements violates the principles of economic efficiency.

1. A fixed monthly per-line subscriber charge ignores the capacity costs associated with termination of phone calls – all customers would pay the same fee for termination of calls regardless of the number of calls received;⁵⁸

⁵⁶ An example where such network externalities are likely to be very important is the case of interconnection between fixed-line and mobile networks. Whereas mobile networks have penetration rates that are closer to 50%, a small decrease in the price offered to mobile customers can increase their participation and thereby provide a positive externality for existing fixed-line customers (and networks). If the price of fixed-to-mobile calls is inflated and the higher price is used to subsidize low mobile subscription charges, the result can be an increase in welfare. Without providing this subsidy there would be less mobile customers. However, with fewer mobile customers, callers would have fewer options to call people who are away from their landline. Although a caller may be prepared to pay a high price to reach such people, the call will not be possible.

⁵⁷ In the Matter of Calling Party Pays Service Offering In the Commercial Mobile Radio Services: Declaratory Ruling and Notice of Proposed Rulemaking. July 7, 1999. WT Docket No. 97-207.

⁵⁸ This is not to say that termination charges assessed on a per call basis under Bill-and-Keep would be economically efficient – they would only be efficient under the unlikely circumstance that the average termination charge would be equal to the average benefit the call receiver gets from his/her/its calls.

2. The Commission's proposal to replace usage sensitive terminating access fees with a fixed customer charge contradicts the Commission's long-held view that economic efficiency dictates that traffic sensitive costs be recovered through traffic sensitive rates;
3. In promulgating its access charge rules, the Commission has recognized that, to the extent possible, costs of interstate access should be recovered in the same way that they are incurred. NASUCA concurs with the FCC that traffic sensitive costs should be recovered through traffic sensitive rates -- "this approach is consistent with principles of cost-causation and promotes economic efficiency ... since traffic sensitive costs should be recovered through corresponding per-minute access rates".⁵⁹
4. In the future it is expected that packets will be bundled with video, data, and voice services as local exchange carriers are designing their networks so that they can provide advanced telecommunications services, such as high-speed access to the Internet and various video products. Despite the lack of any economic or policy justification, the FCC is risking that consumers must pay for all of these services through a fixed monthly subscriber charge;⁶⁰
5. Long distance companies would see reduced expenses as their access costs would be shifted to the end-users, and it is unclear what effect this might have on the pricing of long-distance services and the efficiency of their provision since long distance services would effectively be underpriced while local services would be overpriced -- e.g., consumers would interpret the termination charge as a charge for local service since it would be assessed by their local provider, when in fact the termination charges associated with long-distance calls should rightfully be attributed to the costs of long distance calls;
6. In unregulated markets we only observe a Bill-and-Keep interconnection system under the restrictive condition of balanced traffic -- however, in dynamic and partially regulated markets like telephones there is no guarantee that the traffic between any two operators will remain balanced over time and thus a Bill-and-Keep arrangement does not afford adequate flexibility;
7. Under Bill-and-Keep and a fixed monthly subscriber line charge, the terminating company has less incentive to provide good service since it is not getting paid for the termination service on each call on a per call basis -- there will be underinvestment in termination services and overinvestment in other services since recovering costs from a fixed monthly line subscriber charge does not send the proper signals on the cost of individual calls;
8. In order for the consumer to be adequately informed and make rational choices under Bill-and-Keep, he/she would need to know before picking up the receiver for any incoming call if it is an off-net or on-net call since the former would be more expensive due to the termination charges to be imposed by the called party's provider -- however, this opens a Pandora's box since it would no doubt cause significant customer confusion to be presented with this information as the phone is ringing or to have additional line items and/or monthly bills explaining termination charges after the fact;⁶¹ and

⁵⁹ CALLS, FCC 00-193, at ¶12.

⁶⁰ If the charges for the packets are based on capacity ordered or measured service of the various bundled elements then this problem would be mitigated. However, in the absence of cost studies to determine the cost of providing each element this would be problematic.

⁶¹ The case of credit cards is illustrative here. Cardholders pay an annual fee and interest and finance charges on purchases. There is no hidden and uncertain charge like an "interchange fee" since this is

9. One of the arguments made by proponents of Bill-and-Keep is that it eliminates the monopoly for termination of calls to any individual customer which is held by the provider of local service for the customer since the provider must necessarily terminate all calls received by its customers – however, Bill-and-Keep would have an equally negative market power effect by tipping the market towards monopoly (as noted in paragraph 18 of the NPRM) since all providers would have an incentive to be part of one large network to avoid termination charges which were assessed on a per-minute basis.⁶²

Caller Number Identification is an Inefficient Solution to Charging Customers for Unwanted Calls

The FCC presumes that consumers will be able to screen undesirable calls that would increase under the proposed changes. However, we do not believe this is true. For example, in Maine, Verizon prices caller identification at \$7.50 per month. The FCC NPRM, or the OPP papers, do not address the retail cost of caller identification versus the charges under COBAK.

The investment per line on a digital switch is approximately \$150.⁶³ The investment can be converted to a monthly cost by multiplying the \$150 investment by an annual charge factor. Assuming an annual charge factor of 25%, the annual cost of the switch is $\$150 * .25 = \37.50 . This is equivalent to a monthly cost of $\$37.50 / 12 = \3.125 . Further assuming that 70% of the cost of a switch is traffic sensitive,⁶⁴ the monthly traffic sensitive costs are $\$3.125 * .7 = \2.19 . If we assume that a party only receives calls, the termination payment should be in the range of \$2.19 per month. If traffic (minutes of use) is evenly split between origination and termination, the monthly payment for termination should be $\$2.19 / 2 = \1.09 .

Clearly it would be wasteful for an individual to spend \$7.50 per month for caller identification in order to avoid either \$1.09 or \$2.19 in charges (this calculation ignores the cost of the terminal equipment that must be purchased in order to obtain caller number identification). The FCC

handled by the Credit Card Associations, and hence the system is simple, transparent, and widely used with no "additional" and unexpected (or unpredictable to estimate) charges levied at the end of the month.

⁶² This can easily be seen with an example. If 50% of all customers use Provider A and 50% use Provider B, both face the same costs, and traffic is shared equally, then termination charges should be equal. However, as soon as one company has a cost advantage (or other advantage) over another all customers will prefer to receive service from this provider which would ostensibly have a larger network and wider coverage. In this way, consumers would avoid termination charges for off-net calls by receiving service from that company which had the widest coverage (and hence a higher percentage of on-net calls). In short, consumers have an incentive to be part of the widest network possible under Bill-and-Keep arrangements with per-minute termination charges in order to avoid charges for receiving calls, and this "tips" the market for provision of services towards monopoly or oligopoly. Note that if consumer prices for residential service are regulated as they are now in the United States with flat monthly charges then this decision would not be made by individual consumers, but rather by the providing companies who would have an incentive to merge to reduce termination costs.

⁶³ Washington Utilities and Transportation Commission, *In the Matter of the Pricing Proceeding For Interconnection, Unbundled Elements, Transport and Termination, and Resale*, Docket Nos. UT-960369 (general), UT-960370 (U S WEST), and UT-960371 (GTE), Eighth Supplemental Order, April 16, 1998, par. 312.

⁶⁴ 70% of the switching investment is classified as traffic sensitive investment by the FCC hybrid cost proxy model.

has not provided any data on the percent of the population that has caller number identification. We believe that approximately 25% of the population subscribes to this service.⁶⁵ For the remaining 75%, the customers either are unable to screen calls, and therefore have to pay for calls for which they do not value, or spend \$7.50 per month in order to save a much smaller amount. Therefore caller number identification is clearly an inefficient solution to COBAK's proposal that unwanted calls be paid for by the terminating party.

VI. The Commission's Proposals Raise Complex Implementation Issues which have not been Adequately Addressed, and can not be resolved Overnight

From a practical point of view with respect to policy implementation, we have a number of concerns:

1. The proposed changes would necessitate a flat rate end-user charge which does not reflect traffic sensitive costs in order to cover termination costs and avoid the problem of "tipping" into monopoly;
2. Impact Studies have not been carried out, and the impact of the proposed changes by the FCC has not been examined or referred to the Separations or the Universal Service Joint Board, and therefore the implications for Universal Service have not been properly evaluated;
3. A notice and comment proceeding will not adequately address impacts on states since it provides inadequate time for evaluating the implications for intrastate regulation of a new system for intercarrier compensation;
4. There is insufficient information regarding the potential effects of Bill-and-Keep arrangements on intrastate ratepayers, and therefore it would be premature to move too quickly to a Unified Bill-and-Keep arrangement without jeopardizing the ability of the States to regulate intrastate traffic efficiently;
5. The costs of screening unwanted calls for consumers would be prohibitively high under the proposed changes, and thus there would be an increase in unwanted calls from telemarketers whose providers would no longer have to pay termination charges;
6. Since Bill-and-Keep arrangements have only been used to date in cases where traffic is balanced, there is no way of predicting how well they might be implemented on a wider scale – the FCC's Notice of Proposed Rulemaking is based entirely on the theory and presumption that they will work better than existing regulatory arrangements – and not practice;
7. It is unclear whether the FCC intends to wait until after the CALLS agreement expires or will act sooner -- until this issue is resolved it would be premature to move to a Unified Intercarrier Compensation Regime;

⁶⁵ We are unaware of any publicly available data on the current percentage of customers that subscribe to caller number identification. Therefore the 25% value is a "guestimate" which reflects our belief that a substantial majority of subscribers do not currently subscribe to the service.

8. The effect of any unified or Bill-and-Keep regime on market issues should be fully investigated by both the federal and state regulators and not only the FCC; and
9. A federal unified compensation regime based on Bill-and-Keep or other alternatives would preempt state interconnection policies at this time without adequate input from the states – moreover since some states must mirror the federal access rate structure, and the effects of the proposed changes are uncertain, this introduces an additional uncertainty for the states in setting access rate structures.

VII. The Commission's Proposals are Illegal

Prior Experience from Board-to-Board Theory are a Strong Argument Against the Proposed Changes

Prior to *Smith v. Illinois*⁶⁶ costs were allocated between the federal and state jurisdiction using what was known as the board-to-board theory of jurisdictional separations. Telephone plant consists broadly of four principal categories: the loop which connects the customer to his local central office, local switching equipment, toll switching equipment, and the interoffice facilities that connects the separate switching machines. Under the board-to-board theory telephone companies traditionally contended that the local exchange rates cover the loop and the local exchange switching equipment. Toll rates and, therefore, the definition of what constitutes toll cost, were defined to include only compensation for use of the toll switching equipment and interoffice facilities.

The Commission is proposing that toll carriers no longer be required to contribute to the cost of the local switching machine, regardless of how many calls pass through the local switch and despite the Commission's long-standing view that a portion of the investment in a digital switch is traffic sensitive. In a true back to the future argument DeGraba contends that it is not possible to accurately measure the cost of terminating a call on a local switch. The Supreme Court in *Smith v. Illinois* rejected this very proposition: "While the difficulty in making an exact apportionment of the property is apparent, and extreme nicety is not required, only reasonable measures being essential, it is quite another matter to ignore altogether the actual uses to which the property is put."

The board-to-board theory proposed by AT&T in 1930 was conceptually the same as the NPRM's Bill-and-Keep proposal. Paragraph 76 of the NPRM states "we therefore seek comment on whether Bill-and-Keep provides for the "mutual and reciprocal recovery" of costs." We believe that it does not, and that the NPRM has not addressed why the Commission believes that it can violate the clear direction provided by the Supreme Court in *Smith* on the topic of the proper payment for terminating long-distance calls on a local switch.

Furthermore, while *Smith v. Illinois* only addresses interstate traffic, the reasoning of the Court applies equally to local calls. In *Smith* the Supreme Court rejected the notion that an interconnecting firm could use the local switch without compensating the owner of the property. The same logic precludes the adoption of Bill-and-Keep for the termination of local traffic. The FCC is effectively mandating zero compensation for the use of the terminating party's switch and this amounts to a takings.

⁶⁶ 282 U.S. 133; PUR 1931A, 1.

The Commission's Proposals would amount to a Significant and Illegal Preemption of States Commissions' Authorities

Contrary to the principle of preemption, which requires explicit congressional intent to preempt the states, Congress expressed a clear intent to vest in State Commissions the authority to arbitrate and mediate reciprocal compensation. Congress also mentioned that the alternative "Bill and-Keep" approach for reciprocal compensation agreements was at the state's disposal. In addition, §§ 251 and 252 of the 1996 Telecommunications Act do not suggest that the states should refrain from regulating reciprocal compensation. To the contrary, Congress explicitly granted state commissions the authority to engage in mediation and arbitration.

Congress did not grant the FCC with jurisdiction over the entire field of arbitrating reciprocal compensation issues because that power is specifically with the states. Only if the state fails to act does the FCC assume jurisdiction over the dispute. Finally, the state commissions, when arbitrating reciprocal compensation, do not act as barriers to accomplish the full objectives of Congress. If the purpose of the Act is to foster competition in the local market, and Congress left it to the states to arbitrate intercarrier compensation consistent with the Act, then allowing the states to arbitrate such issues, by choosing to implement "Bill and-Keep" or otherwise, is not a barrier to promoting a competitive local market.

In short, it does not appear that Congress intended the FCC to supersede state authority over intercarrier compensation issues unless the state commission fails to act or acts in a way contrary to promoting local competition. Otherwise, Congress has specifically denied FCC jurisdiction. As such, the FCC should not have the power to issue an order that will have preemptive effect over state commissions.

Congress explicitly guided the state commissions by leaving the *option* of a "bill and keep" approach in arbitrating reciprocal compensation agreements. The option implies that state, not the FCC, is accorded the power to make the best determination of reciprocal compensation agreements. Further, Congress expressly preserved state power to impose its laws. A universal "bill and keep" method may be contrary to state law. By leaving the option of "bill and keep," as opposed to requiring the state to implement a "bill and keep" approach, Congress probably recognized that the states are in a better position to evaluate agreements and ensure compliance with the Act as well as their own state laws. Thus, the FCC may be overstepping its authority by mandating a "bill and keep" approach nationwide.

A Number of Statutory Issues Indicate that the Commission's Proposals Violate the Act

The statement of Commissioner Furchtgott-Roth regarding the NPRM perhaps best summarizes NASUCA's position regarding the legal issues surrounding the proposed Unified Intercarrier Compensation scheme:

"Moreover, the 1996 Act explicitly aims to remove impediments to contract. For example, section 252 limits the grounds on which State commissions may reject privately negotiated intercarrier agreements. See 47 U.S.C. § 252(e)(2)(A). In addition, section 253(a) prohibits barriers to entry—which necessarily include foreclosing options to contract between private parties: "No State or local statute or regulation, or other State or local legal requirement, may prohibit or have the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service." 47 U.S.C. § 253(a). These provisions make unlawful many forms of price regulation that limit the scope of contracts between and among carriers. While the focus of these provisions is primarily upon State and local governments, the federal

government should be slow to adopt regulation that State or local governments cannot legally impose.”⁶⁷

Below we provide a more complete summary of a number of legal issues with respect to the proposed changes in the NPRM which suggest that many of the proposed changes would violate the Telecommunications Act of 1996:

1. Under Sections 251/252 or 201(b), the Commission may not impose a confiscatory inter-carrier compensation mechanism – yet Bill-and-Keep would be confiscatory in the case of materially out-of-balance ISP-bound traffic, and would thus violate the Communications Act of 1934, as amended (the “Act”) and the takings clause of the Fifth Amendment to the United States Constitution;⁶⁸
2. The Telecommunications Act requires that any reciprocal termination charges for local traffic must be negotiated between the interconnecting carriers – but a **Bill-and-Keep** system would effectively not require the carriers to negotiate reciprocal termination agreements;⁶⁹
3. The FCC can only preempt the role of a state commission if Congress grants such power since Congress expressly gave state commissions the power over arbitrating and resolving reciprocal compensation issues -- pursuant to section § 160 of the Act, the FCC cannot forbear from applying §§ 251 and 252 and thus cannot take arbitration power away from the states.⁷⁰
4. The Telecommunications Act requires that the Universal Service Joint Board, the FCC, and the state commissions preserve and advance universal service at just, reasonable, and

⁶⁷ Statement of Commissioner Harold Furchtgott-Roth regarding the Notice of Proposed Rulemaking, developing a Unified Inter-carrier Compensation Regime (CC Docket No. 01-92).

⁶⁸ In the case of ISP-bound traffic, where the exchange of traffic between local exchange carriers (“LECs”) typically is materially out-of-balance, Section 252(d)(2) plainly bars the mandatory application of Bill-and-Keep in lieu of cost-based reciprocal compensation required under Section 251(b)(5). To be sure, Section 252(d)(2) permits “arrangements that *afford the mutual recovery of costs through the offsetting of reciprocal obligations*, including arrangements that waive mutual recovery (such as Bill-and-Keep arrangements)”. *Id.* § 252(d)(2)(B)(i) (emphasis added). However, as the Commission correctly concluded in its 1996 *Local Competition Order (Implementation of the Local Competition Provisions of the telecommunications act of 1996 – August 8, 1996)*, the FCC’s and the states’ authority to impose mandatory Bill-and-Keep is *limited* by the plain language of Section 252(d)(2): the reciprocal obligations must be *offsetting* – “the volume of terminating traffic that originates on one network and terminates on another network [must be] approximately equal to the volume of traffic flowing in the opposite direction, and [must be] expected to remain so.” *Local Competition Order*, ¶ 1111. (See letter of February 26, 2001 from the Association for Local Telecommunications Services and the Competitive Telecommunications Association to the Common carrier Bureau of the FCC.)

⁶⁹ The argument that Default Bill-and-Keep arrangements whereby Bill-and-Keep is the default solution if carriers can not agree on an inter-carrier compensation scheme also violates this legal requirement – some might argue that allowing Bill-and-Keep as a default option does not preclude the two parties negotiating an inter-carrier agreement (see DeGraba paragraph 29), however, so long as one party knows that Bill-and-Keep is its preferred option to a negotiated solution it effectively has no incentive to negotiate an inter-carrier agreement in good faith.

⁷⁰ Under the NPRM, the FCC plans for developing a unified inter-carrier compensation regime would not only be contrary to prior FCC positions, but would also be in conflict as well with compensation systems currently in use by many state Commissions -- e.g., Bill-and-Keep definitions and treatment of Bill-and-Keep arrangements vary from state to state.

affordable rates – but without an analysis of the proposed changes by EACH of these parties there is no guarantee that the proposed changes will comply with this objective of the law since the varying perspectives would not have been taken into account;

5. Collective setting of interchange fees in other industries has never been found to be anticompetitive in the past – in fact a 1986 decision of the Eleventh Circuit Court regarding Visa Interchange Fees ruled that the interchange fee “is more procompetitive than anticompetitive is supported by substantial and persuasive evidence”;
6. Recovering traffic sensitive costs (i.e., termination costs) through a fixed subscriber line charge thus violates the Section 254(k) mandate of the Telecommunications Act on subsidies of competitive services by non-competitive ones since under Bill-and-Keep termination is a non-competitive service; and
7. The FCC’s failure to explain why it is not possible to reasonably approximate the cost of terminating traffic is inconsistent with the law, especially in light of the Commission’s prior emphasis on only needing to approximate the cost of terminating traffic.⁷²

VIII. The Commission’s Proposals do not Promote Equity, Cost-Sharing, and Universal Service

Section 254(k) of the Telecommunications Act of 1996 states: “Subsidy of Competitive Services Prohibited -- a telecommunications carrier may not use services that are not competitive to subsidize services that are subject to competition. The Commission, with respect to interstate services, and the States, with respect to intrastate services, shall establish any necessary cost allocation rules, accounting safeguards, and guidelines to ensure that services included in the definition of universal service bear no more than a reasonable share of the joint and common costs of facilities used to provide those services.”

Moreover, as the Commission notes in paragraph 32 of the NPRM, “with the passage of the 1996 Act, and its mandate for opening all telecommunications markets to competition, it is no longer clear that intercarrier compensation rules can serve all of these multiple goals. For example, Congress, in passing the 1996 Act, recognized that the implicit subsidies historically contained in access charges are not sustainable in competitive local telecommunications markets.”⁷³ Accordingly, Congress in the 1996 Act directed this Commission and the states to reform universal service.”

Thus, from an equity and fairness standpoint, the following problems arise with the proposed Bill-and-Keep system of intercarrier compensation:

1. Recovering traffic sensitive costs (i.e., termination costs) through a fixed subscriber line charge thus violates the Section 254(k) mandate since it invites cross-subsidization of other services with the additional revenue generated from termination charges;

⁷¹ National Bancard Corporation v. Visa U.S.A., Inc., 596 F. Supp. 1231 (S.D. Fla. 1984), aff’d, 779 F.2d 592 (11th Cir. 1986), cert. denied, 479 U.S.923 (1986).

⁷² Smith v. Illinois 282 U.S. 133; PUR 1931A, 1.

⁷³ See S. REP. No. 103-367 (1994).

2. The FCC's CALLS order was lauded for reducing, if not eliminating implicit subsidies between customer classes⁷⁴ -- paradoxically, the Commission proposes in its NPRM to have low-volume users subsidize high-volume users. The proposed changes effectively mandate that low usage customers subsidize high usage customers by paying the same fee for call termination regardless of the number of calls they receive on their line in a given month;
3. The local carriers with the highest terminating access charges are typically the rural carriers who operate in higher costs areas where per unit costs of offices and switching services are higher -- thus the proposed changes would undermine the provision of universal service by making provision of rural service more expensive⁷⁵;
4. The proposed arrangements will also undermine universal service since the termination charges will be assessed at the local level -- making basic local service more expensive while lowering the costs of long distance service;
5. Under a unified Bill-and-Keep regime, consumers would pay a substantial part of the access costs for terminating a call at their home, even if it was a call they did not wish to receive; and
6. It is unknown whether Bill-and-Keep will: provide fair compensation to each carrier in the market, especially if there are imbalances in the type or volume of traffic between the carriers.

IX. Concluding Remarks

The proposed changes would institute a Bill-and-Keep regime for assessing termination charges, whereby there would be no termination charges and each carrier would be required to recover the costs of termination from its end-users. This would replace the current system where carriers are required to negotiate reciprocal compensation as mandated under the 1996 Telecommunications Act.

However, the NPRM has failed to adequately address why the Commission has decided that it must renounce its dependence on competitive markets and instead rely on regulation to draw down termination fees. NASUCA believes that the Congressional intent was to rely on markets to determine a sensible rate structure. The rate structure proposed by the Commission can find no support in the operations of competitive markets. Networks only interconnect on a bill-and-keep basis when the benefits are balanced.

The FCC has effectively proposed recovering traffic-sensitive costs through a fixed customer line charge. The surcharge is anathema to NASUCA. Congress did not open up the

⁷⁴ CALLS, FCC 00-193, at ¶31.

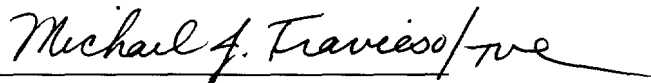
⁷⁵ See Comments of Commissioner Susan Ness regarding the NPRM for Developing a Unified Inter-carrier Compensation Regime: "At the same time, I urge the Commission to remain mindful of the implications of our actions on those living in rural and other high-cost areas. We must take heed to preserve the third pillar of the Telecommunications Act of 1996—universal service. Consumers will only benefit when we establish an economically rational, competitively neutral, explicit mechanism that will promote the Act's goals of competition, deregulation, and universal service."

telecommunications market in 1996 so that the Federal Communications Commission could impose a regulatory outcome that is not observed in any network industry. Moreover, NASUCA believes that the NPRM presents the weakest case we have ever seen for an additional surcharge on customers' bills because the Commission is proposing to recover traffic sensitive costs through a fixed subscriber line charge. The Commission has failed to justify that such a radical departure from economic efficiency is in the public interest.

We recommend the following measures in lieu of the proposals in the NPRM:

1. The FCC should not adopt a specific compensation regime to universally cover the costs of interconnection of network traffic since this is not efficient in a market comprised of a variety of types of services and a very dynamic and innovative sector like telecommunications;
2. A fixed end-user charge should not be used to recover termination costs -- instead a wholesale capacity charge which reflects traffic sensitive costs should be used;⁷⁶ and
3. Any proposed changes must be careful not to undermine the legal authority of state commissions to mediate and arbitrate negotiation agreements governing reciprocal compensation since the FCC only has legal jurisdiction to act if it appears that a state commission is not promoting competition.

Respectfully submitted,



Michael J. Travieso
People's Counsel

Maryland Office of People's Counsel
6 St. Paul Street, Suite 2102
Baltimore, Maryland 21202
(410) 767-8150

On Behalf of The National Association of
State Utility Consumer Advocates
8300 Colesville Rd., Suite 101
Silver Spring, MD 20910
(301) 589-6313

⁷⁶ Per-minute charges are not desirable for covering termination costs under the proposed Bill-and-Keep arrangements because they would "tip" the market towards monopoly since consumers would have an incentive to subscribe to larger and larger networks in order to avoid these charges.

ANNEXES

Comments on OPP Working Paper 33 by Patrick DeGraba
Bill and Keep at the Central Office As the Efficient Interconnection Regime

Paragraph 4. The paper is based on the assumption that both parties benefit equally from a call, but there is no empirical basis for this assumption.

Paragraph 70. The author states that there may be little difference in the cost of terminating a local and toll call, but there is no evidence of this.

Paragraph 77. The paper states that regulatory arbitrage has encouraged CLECs to target ISPs, but no mention is made of the incentive for ISPs to collocate with CLECs since it is more difficult to collocate with ILECs which also have their own ISPs.

Paragraph 29. The author claims that pricing developments among cellular claims support the proposition that traffic sensitive costs are *de minimus*. We believe nothing could be further from the truth.⁷⁷ Customers are offered bundled minutes in the hope that they will leave some minutes unused.

Paragraph 54. The author asserts that unsolicited calls (telemarketing) are a small percentage of calls, but does not cite any support for this proposition. Second, even if it were true, the paper does not address what would happen if the cost of termination was zero. The lower price will stimulate demand and this is a welfare loss that has not been addressed.

Paragraph 67. If there is insufficient competition, the regulator will need to establish a reasonable method for recovering the costs. Reasonableness is always defined with reference to the cost of service (e.g., the author notes that on average a carrier would just be able to recover its costs in a competitive market). DeGraba does not explain how it is that the regulator has the foresight to set the right end-user prices (absent competition), but they do not have the foresight to set the right wholesale price (the argument made in the last sentences of paragraphs 69 and 91).

Paragraph 77. Why is it easy to set transport but not switching rates? Is it because of capacity costs? If so, why not set a capacity charge for switching, as we proposed in the body of our response.

Paragraph 80. The author states that the COBAK pricing structure should be adopted in order to establish parity for Voice over Internet (VOIP) and traditional telephone service. Yet, a different OPP paper recognizes that VOIP will not succeed until there are termination fees for the calls made on the internet in order to insure adequate service. The absence of such fees has inhibited the development of VOIP.

Paragraph 81. The author postulates that the current termination fees may be too high. This is inconsistent with paragraphs 69 and 91 where it is argued that costs cannot be accurately estimated. We agree that the rate structure is not the most efficient, but this does not require COBAK. Rather the solution is having charges based on capacity.

⁷⁷ For a cogent statement of the error in DeGraba's thinking, see Bridger M. Mitchell & Padmanabhan Srinagesh, *Transport and Termination Costs in PCS Networks: An Economic Analysis* at 20-21 (Sprint PCS, White Paper, Apr. 4, 2000). This paper is cited at footnote 31 of the NPRM.

Paragraph 85. The author asserts the current rate structure may impede investment when the Internet expert at the FCC argued just the contrary. Packet switch technology is certainly not incompatible with per minute rates for voice calls. This is just the type of technology used in modern voice networks today.

Paragraph 88. COBAK does introduce new distortions. A zero price for use of traffic sensitive elements does create a distortion in the price of usage.

Paragraph 90. The author states that switching cost recovery would be folded into all the other costs that have to be recovered. However, the final rate is either traffic sensitive or a fixed per customer charge. However, if regulators can not set traffic sensitive rates correctly, how can these costs be recovered efficiently? If customers pay for the entire cost of a switching machine through a fixed monthly fee, this means that they are paying for the full capability of providing vertical features (e.g., call-waiting, call-forwarding, three-way calling). Is the FCC going to require that vertical features be provided free since the entire cost of providing the vertical features will now be recovered through a fixed monthly charge? If the rate was not set to zero, customers would have to pay twice to cover the cost of using these features.

Paragraph 95. The discussion of the cellular market is misleading -- there is not a zero cost associated with usage. Customers select the bucket of minutes that best fits their anticipated usage patterns. If a customer uses more than the number of minutes that he/she has anticipated, he/she pays a usage fee of \$0.25 a minute. The buckets are there so that people will pay for something that they do not use. Such a pricing system does not suggest "that few costs are incurred on a per-minute basis". Given the congestion on wireless networks, it is hard to suggest that there is a near zero cost associated with usage.

Comments on OPP Working Paper 34 by Jay M. Atkinson and Christopher C. Barnekov
A Competitively Neutral Approach to Network Interconnection

Parauraph 2. The authors write, “we propose that a good regime should result in a competitively neutral, economically efficient inter-carrier compensation and minimum regulatory intervention. By competitively neutral, we mean that the interconnection regime itself confers no special advantage or disadvantage on any carrier or technology.” However, the analysis does not present a cogent argument for why private negotiation does not obtain the same result as it usually does in a competitive market economy. Clearly having the government impose bill and keep violates minimum regulatory intervention.

Parauraph 2. The paper mentions that it looks at various types of networks, but the practical examples provided in our comments are nowhere to be found in the paper. The paper does not explain why every market that we have identified in our comments does not exhibit the same kinds of market failure as telecommunications, and therefore would require the same sort of corrective regulatory action through mandated Bill-and-Keep arrangements. Neither does it explain why the authors have effectively concluded that roaming charges in wireless networks are sensible, and satisfy all the properties identified by the authors for a competitively neutral approach to network interconnection. Roaming charges are of course one more example of unregulated networks not adopting bill-and-keep.

Paragraph 9. Regulators can not correctly allocate common costs to different services. The authors write, “only markets can make such an allocation correctly.” Yet, the BASICS approach is endorsing a mechanism that is not found in any markets.

Paragraph 10. The authors write, “the second stumbling block we avoid is that, under current institutional arrangements, end users have no direct control over access arrangements”. We believe to the contrary. Users who do not highly value a call use 800 numbers in order to avoid the cost of using their own network. Parties who highly value terminating traffic offer 800 service. Under Bill-and-Keep, the latitude to have the party who greatly values the communication pay for the call is seriously reduced, if not eliminated.

Parauraph 12(as well as Paragraphs 34 and 41 of the NPRM). Regarding the discussion of Customer Premises Equipment (CPE), there is a fundamental difference between customer owned terminal equipment and interconnection. The cost of a handset is not affected by how many calls are received. Handsets have always been classified as non-traffic sensitive plant (NTS). Interconnection payments have never been designed to cover the cost of NTS (access fees were, but that is not surprising, as recognized by the authors in paragraph 9 -- the loop is a common cost and all services should make a contribution towards the common cost). Moreover, through CALLS, and other steps, the FCC has taken steps to eliminate recovery of NTS costs through usage sensitive rates. Therefore, Computer II is not analogous because interconnection has been designed to recover traffic sensitive costs.

Parauraph 18. The authors identify two criteria for mandatory interconnection regimes. “Do they result in economically efficient inter-carrier compensation? And are regulators likely to get it right?” We ask, how can regulators get it right if the compensation mechanism is wrong?

Parauraph 33. The analytical framework seems unrealistic because it assumes that there is a need to link every consumer. It is well known that people have small calling circles.

Paragraph 35. Equilibrium is described as equal costs on each network and equal size. However, the reality is that it is cheaper to have everyone on the same network if all networks **did** was minimize costs. However, they do not and therefore the analysis does not seriously address the problem of the incentive of tipping into monopoly. The costs incurred depend on the amount of traffic, not on the number of subscribers, and it depends on the community of interest. The paper fails to address that if a consumer on network X has no need to talk to someone on network O, that it would be inefficient to charge the subscriber for something that provides no utility -- and furthermore undercharge the person who does cause the costs to be incurred.

Paragraph 42. Atkinson and Barnekov contend that a distinction should be made between costs incremental to traffic and costs incremental to interconnection. The authors propose that networks should share equally those costs that are solely incremental to interconnection and bear individually all costs that are not incremental to interconnection.

The authors do not clearly delineate how costs that are incremental to interconnection can be separated from the costs that are not incremental to interconnection (see discussion in paragraph 42 of Atkinson and Barnekov paper). For example, once one provider no longer serves the market, the percentage of intraoffice calls falls. It is well known that the cost of an intraoffice call is significantly less than the percentage of interoffice calls. The authors have provided no guidance on how regulators can identify the cost impact of the increase in the percentage of traffic that is interoffice. Such a calculation is required in order to determine the costs that are incremental to interconnection relative to a network served by one supplier.

Neither have the authors said how regulators can identify the impact of interconnection on traffic volumes. Competition will stimulate usage due to a combination of factors, such as lower prices and new pricing structures. Absent interconnection and competition, this stimulation would not occur. The authors have not explained how the increased usage due to competition can be separated from increases due to other factors, such as changes in the structure of the economy.

The paper's analysis is of limited use because it presumes that links are defined by the number of customers on each network, rather than the amount of traffic following between the systems (e.g., see paragraphs 35-36). It is only by defining benefit in terms of the number of customers reached that the authors are able to assert that it would be efficient to share the incremental costs of interconnection (paragraph 36). The authors are silent on how costs should be shared in the real world where different valuations are placed on receiving and placing calls. Furthermore, whereas costs are incurred based on traffic flows, rather than the number of subscribers, we find that the modeling fails to capture the essence of the costs associated with interconnection.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a copy of the Comments of the National Association of State Utility Consumer Advocates will be furnished to parties on the attached list.

Paul Moon
Common Carrier Bureau
445 12th Street, S.W.
Room 3-C423
Washington, D.C. 20554

International Transcription Service, Inc.
445 12th Street, S.W.
Room CY-B402
Washington, D.C. 20554

Jane Jackson
Common Carrier Bureau
445 12th Street, S.W.
Room 5-A225
Washington, D.C. 20554

Wanda Harris
Common Carrier Bureau
445 12th Street, S.W.
Room 5-A452
Washington, D.C. 20554



Michael J. Travieso, People's Counsel
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